

Impediments, Infrastructure and Opportunities
for
CORBAmed™
and
Standard Developing Organizations

Thomas C. Culpepper
Senior Software Engineer
3M Health Information Systems
575 West Murray Blvd
Murray, Utah 84123
(801) 265-4534
(801) 263-3553 fax
tcculpepper@wpmail.code3.com

Contents

Preface	3
Benefits	4
Impediments to Technological-Domain Collaboration	5
Infrastructure Building Opportunities	6
Technological/Domain Coupling Opportunities	7
Goals to Reduce the Barriers to Collaboration	8
Next Steps	9

Preface

The purpose of this document is to begin a campaign for getting Standard Developing Organizations (SDO) to work together in an effort to move more closely to complete healthcare information technology solutions.

The roots of this campaign began several months ago with a small group of three individuals and at the November 1998 CORBAmed™ meeting in Burlingame, CA we conducted a brainstorming session which produced much of the information contained in this document.

The audience for this document spans the complete organizational structure from top-level management to the grassroots individuals working on specific specifications.

It is meant to be a working document and should be refined as collaboration efforts move forward and new ideas and perspectives are discussed and collected.

Outline

- **Benefits**
- **Issues**
 - Impediments to technological-domain collaboration.
 - Infrastructure-building opportunities to promote collaboration.
 - Various technological-domain coupling opportunities.
- **Goals**
- **Next Steps**

Benefits

Collaboration will benefit SDOs as well as architects, developers, and consumers

From the beginning we perceived a value for harmonization efforts between SDOs, and consequently identified many of the benefits the SDOs would reap as well as end-result benefits to architects, developers, and product consumers.

After creating a list of the various standards and SDOs we developed the following list of benefits that we felt would assist CORBAmed™ in its endeavors:

Benefits to CORBAmed

Completeness

- Enhanced domain expertise
- Fewer competing standards

Market Place

- Increased implementations
- Increased adoption
- Less duplication of efforts
- Broader markets
- Existing work leveraged
- Increased credibility in majority markets

Future

- Survival
- Client/vendor connections

Benefits to Other SDOs

Because we are familiar with the workings of the Object Management Group (OMG) and CORBAmed™ we created a list of the benefits we believe other SDOs could glean from interacting with CORBAmed™:

- Modernization
- Object Management Architecture (OMA) hides complexity
- Component design knowledge
- Interoperability
- Legacy system integration

Impediments to Technological-Domain Collaboration

Management assistance essential to removing obstacles

As we move forward in developing standards, we must rely upon management to assist in keeping the road clear of obstacles so we can develop products for optimal usage, minimize redundancy, and exploit collaborative knowledge.

Main Barriers to Overcome

Resource barriers

- Over-allocation "bandwidth"
- Lost of attendance/membership

Organizational barriers

- Intellectual property rights
- Process coordination
- Membership policies
- Loss of control - incompatible agendas
- Timing protracted adoption

Communication barriers

- Non-existent communication links
- Insufficient education
- Inadequate formal relationships

Infrastructure-Building Opportunities

A foundation for building collaborative relationships

If collaboration is the goal, infrastructure is the key. The way to make things happen is to define the areas of concern and establish the groundwork for how to solve them.

The greatest need is to work with other organizations in developing optimum solutions. Appropriate mechanisms for the following foundation blocks need to be created or re-created as the case may be.

Necessary Foundation Blocks

Understanding

- Identify related groups and how they are related
- Education
- Active participation

Communications

- Co-located meetings
- Education
- Joint mailing lists
- Updated formal liaisons
- Active participation

Respect

- Cross membership
- Common co-chairs
- Joint reviews
- Mutual endorsements
- Joint adoption
- Joint shows and demos
- Joint marketing efforts

Technological-Domain Coupling Opportunities

**“Focused factories” exist in medical technology: USE them.
Banish the “Not Invented Here” mentality.**

Collaboration efforts can be parallel, which will improve both speed and overall effectiveness. A great deal of grass-roots work can be done to identify standards and SDOs that should be working together, and to make this happen. This means moving away from the “Not Invented Here” syndrome and seeing benefit in each others’s areas of expertise.

The author of *Market Driven Health Care* introduced the idea of “focused factories”: “Focused factories will likely serve your needs better than your internal people because they focus on only one thing, and they do it over and over and over again.”ⁱ Although it is not a new idea, it can be used to help us look outside our current environments into other areas where individuals are concentrating on solving pieces of the puzzle. Once we clearly understand who is doing what, we can work with those individuals or groups to develop a complete solution.

Focused factories

Standard Developing Organization	Interests
ANSI http://web.ansi.org/	<ul style="list-style-type: none">• X12
CEN http://www.cenorm.be/	<ul style="list-style-type: none">• European popularity
HL7 http://www.hl7.org	<ul style="list-style-type: none">• Broad Domain Expertise
ISO http://www.iso.ch/	<ul style="list-style-type: none">• World-Wide popularity• LQS
MSHUG http://www.mshug.org/	<ul style="list-style-type: none">• ActiveX
NCPDP http://www.ncdp.org/	<ul style="list-style-type: none">• Pharmacy
NEMA http://www.nema.org/	<ul style="list-style-type: none">• Digital Imaging & Communications in Medicine (DICOM)
W3C http://www.w3.org	<ul style="list-style-type: none">• XML

This set is not exhaustive but includes those we consider most important to CORBAMED at this writing. We are open to suggestions for others.

Grass-roots efforts are currently underway with the Clinical Observation Access Service (COAS) submission and HL7, CEN.

Goals to Reduce the Barriers to Collaboration

“In the absence of clearly defined goals, we are forced to concentrate on activity and ultimately become enslaved by it.”ⁱⁱ

To harmonize efforts between CORBAmed and existing SDOs we must:

- Minimize the impediments to technological-domain collaboration.
- Ensure that the infrastructure building opportunities have been addressed and moved forward with active participation.
- Recognize and set up formal liaison relationships to the various technological-domain coupling opportunities.

Each of these areas will require participation from the individuals involved at the various levels of the SDOs:

- At the highest level, we need a firm and open commitment to remove barriers to collaboration and to assign and follow-through to the appropriate sub-committees.
- Process committees can enhance infrastructure-building by assisting in standards adoption, updating and maintaining liaisons, etc. Education can be done at all levels within the SDO.
- Grassroots technological-domain coupling opportunities require a commitment from individuals to recognize areas of overlap as well as tasks done already—or done better—by someone else.

Next Steps

I wake up each morning determined to change the World and also to have one hell of a good time. Sometimes that makes planning the day a little difficult.
E.B. White

If we are to be successful in the health care information technology environment then we must work together in order to produce the necessary standards that will allow us to move forward with the satisfaction that what we produce today can be used tomorrow.

1. The executive board members must meet face to face and discuss ways in which the impediments to technological-domain collaboration issue can be resolved. Find the time to setup the meeting and do it.
2. A press release to the public that states that the SDOs are working together and that all concerned individuals participate. With an emphasis on the fact that there are enough standards bodies and that the time has come to make them work rather than abandoning them. This will require a bit of communications and collaboration between the SDOs marketing folks but I believe they are up to the challenge.
3. Participants must take the initiative to remove their blinders, put down their bias and find ways in which they can utilize existing contributions.
 - Presentations.
 - Help minimize controversy.
 - EMail education.
4. COMMUNICATE openly and honestly.
5. Review and make suggestions to this document.
6. Work internally to help your organization realize that standards do help and that you should be given the opportunity to make contributions.

This is hard work but it needs to be done. We can continue to make excuses, for ourselves, our parents and when the time comes for are children, or we can take the challenge and do what needs to be done. Although health care information technology is a business it is also about doing the things that we know we should be doing and could be doing if we just put our heads together and find the common ground.

ⁱ Regina Herzlinger. *Market Driven Health Care*. Perseus Books. 1997. P 287

ⁱⁱ Charles A. Coonradt with Lee Nelson. *The Game of Work*, Shadow Mountain. 1984